

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Akiko ITAI et al.

**Confirmation No. 5544**

Group Art Unit : not yet assigned

Appl. No. : 10/529,946

(U.S. National Phase of PCT/JP2003/012648)

Examiner : Not Yet Assigned

I.A. Filed : October 2, 2003

For : QUINAZOLIN-4-ONE DERIVATIVES

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
U.S. Patent and Trademark Office  
Customer Window, Mail Stop Amendment  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir :

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98, Applicants hereby bring the following information to the attention of the Examiner in charge of the above-identified application, which includes information cited and discussed in the specification, the International Search Report, and the International Preliminary Examination Report issued in connection with International Patent Application No. PCT/JP2003/012648, of which the present application is the U.S. National Phase Application.

Copies of the International Search Report (in English and Japanese) and the International Preliminary Examination Report (in Japanese) were enclosed with the papers when entering the National Stage on April 1, 2005. A copy of the

International Preliminary Examination Report in English is attached hereto. The Examiner is invited to review these materials to inspect the relevance indicated during international examination with respect to the documents cited therein.

The following is a list of the documents which are cited in the above-noted documents:

- (1) Robert A. LEWIS et al., J. Immunol., Vol. 129, pp. 1627-1631, 1982.  
Applicants note that this document is cited on page 1 of the present application;
- (2) John J. MURRAY et al., N. Eng. J. Med., Vol. 315 No. 13, pp. 800-804, 1986. Applicants note that this document is cited on page 1 of the present application;
- (3) Christopher Charles HARDY et al., N. Eng. J. Med., Vol. 311 No. 4, pp. 209-213, 1984. Applicants note that this document is cited on pages 1 and 2 of the present application;
- (4) Donald G. RAIBLE et al., J. Immunol., Vol. 148, pp. 3536-3542, 1992.  
Applicants note that this document is cited on page 2 of the present application;
- (5) Toshiyuki MATSUOKA et al., Science., Vol. 287, pp. 2013-2017, 2000.  
Applicants note that this document is cited on page 2 of the present application;

- (6) Yoshihiro URADE et al., Vitamins and Hormones, Vol. 58, pp. 89-120, 2000. Applicants note that this document is cited on pages 2 and 31 of the present application;
- (7) Yoshihiro URADE et al., J. Biol. Chem., Vol. 260, No. 23, pp. 12410-12415, 1985. Applicants note that this document is cited on page 2 and 31 of the present application;
- (8) Yoshihiro URADE et al., Biochim. Biophys. Acta 1482, pp. 259-271, 2000. Applicants note that this document is cited on pages 2, 31 and 32 of the present application;
- (9) Yoshihiro URADE et al., J. Immunol., Vol. 143 No. 9, pp. 2982-2989, 1989. Applicants note that this document is cited on page 2 of the present application;
- (10) Yoshihiro URADE et al., J. Biol. Chem., Vol. 265, No. 1, pp. 371-375, 1990. Applicants note that this document is cited on page 2 of the present application;
- (11) Makoto MURAKAMI et al., J. Biol. Chem., Vol. 270, No. 7, pp. 3239-3246, 1995. Applicants note that this document is cited on page 2 of the present application;
- (12) Nobutoshi MATSUSHITA et al., Jpn. J. Pharmacol., Vol. 78, pp. 1-10, 1998. Applicants note that this document is cited on page 2 of the present application;

- (13) Nobutoshi MATSUSHITA et al., Jpn. J. Pharmacol., Vol. 78, pp. 11-22, 1998. Applicants note that this document is cited on page 2 of the present application;
- (14) Yoshihide KANAOKA et al., Cell, Vol. 90, No. 6, pp. 1085-1095, 1997. Applicants note that this document is cited on page 3 of the present application;
- (15) Takuro KOBAYASHI et al., Brain Res., Vol. 202, No. 2, pp. 479-483, 1980. Applicants note that this document is cited on page 66 of the present application;
- (16) L. W. DUCHEN et al., Brain, Vol. 103, No. 3, pp. 695-710, 1980. Applicants note that this document is cited on page 66 of the present application;
- (17) Norio SAKAI et al., J. Neurochem., Vol. 66, No. 3, pp. 1118-1124, 1996. Applicants note that this document is cited on page 66 of the present application;
- (18) Masako TANIIKE et al., J. Neuropathol. Exp. Neurol., Vol. 58, No. 6, pp. 644-653, 1999. Applicants note that this document is cited on page 66 of the present application;
- (19) Motoki ICHIKAWA et al., Cell. Immunol., Vol. 191, No. 2, pp. 97-104, 1999. Applicants note that this document is cited on page 66 of the present application;

- (20) Bernhard HEMMER et al., *Nature Rev. Neurosci.*, Vol. 3, No. 4, pp. 291-301, 2002. Applicants note that this document is cited on page 66 of the present application;
- (21) Bodour SALHIA et al., *Brain Res.*, Vol. 883, No. 1, pp. 87-97, 2000. Applicants note that this document is cited on page 66 of the present application;
- (22) Esther GARCIA DE YEBENES et al., *J. Neurochem.*, Vol 73, No. 2, pp. 812-820, 1999. Applicants note that this document is cited on page 66 of the present application;
- (23) WO 2004/006956 A1, January 22, 2004, accompanied by an English language abstract thereof (provided by esp@cenet). Applicants note that this document is cited on page 31 of the present application;
- (24) European Patent Application No. EP 1 224 861 A1, July 24, 2002, corresponding to International Patent Application Publication No. WO 01/24627, published April 12, 2001. Applicants note that this document is cited on page 67 of the present application.

The following documents are cited in the International Search Report for International Application No. PCT/JP03/12648:

- (25) WO00/35452 A, June 22, 2000;
- (26) U.S. Patent No. 6,331,541 B1 (Ko et al.), December 18, 2001; Applicants note that this document is a family member of document (25);

- (27) U.S. Patent No. 6,444,686 B1 (Ko et al.), September 3, 2002; Applicants note that this document is a family member of documents (25) and (26);
- (28) U.S. Patent No. 6,486,180 B1 (Ko et al.), November 26, 2002; Applicants note that this document is a family member of documents (25) to (27);
- (29) U.S. Patent No. 6,492,400 B1 (Ko et al.), December 10, 2002; Applicants note that this document is a family member of documents (25) to (28);
- (30) U.S. Patent No. 6,521,592 B2 (Ko et al.), February 18, 2003; Applicants note that this document is a family member of documents (25) to (29);
- (31) U.S. Patent Application Publication No. US 2003/0013741 A1 (Ko et al.), January 16, 2003; Applicants note that this document is a family member of documents (25) to (30);
- (32) U.S. Patent No. 6,525,069 B1 (Ko et al.), February 25, 2003; Applicants note that this document is a family member of documents (25) to (31);
- (33) U.S. Patent No. 6,605,623 B1 (Ko et al.), August 12, 2003; Applicants note that this document is a family member of documents (25) to (32);
- (34) U.S. Patent No. 6,780,857 B2 (Ko et al.), August 24, 2004; Applicants note that this document is a family member of documents (25) to (33);
- (35) U.S. Patent Application Publication No. US 2004/0006107 A1 (Ko et al.), January 8, 2004; Applicants note that this document is a family member of documents (25) to (34);
- (36) U.S. Patent No. 6,875,776 B2 (Ko et al.), April 5, 2005; Applicants note that this document is a family member of documents (25) to (35);

- (37) U.S. Patent Application Publication No. US 2004/0002515A1 (Ko et al.), January 1, 2004; Applicants note that this document is a family member of documents (25) to (36);
- (38) U.S. Patent No. 6,897,234 B2 (Ko et al.), May 24, 2005; Applicants note that this document is a family member of documents (25) to (37);
- (39) U.S. Patent Application Publication No. US 2003/0114489 A1 (Ko et al.), June 19, 2003; Applicants note that this document is a family member of documents (25) to (38);
- (40) U.S. Patent No. 6,906,066 B2 (Ko et al.), June 14, 2005; Applicants note that this document is a family member of documents (25) to (39);
- (41) U.S. Patent Application Publication No. US 2004/0058960 A1 (Ko et al.), March 25, 2004; Applicants note that this document is a family member of documents (25) to (40);
- (42) U.S. Patent No. 6,919,368 B2 (Ko et al.), July 19, 2005; Applicants note that this document is a family member of documents (25) to (41);
- (43) U.S. Patent Application Publication No. US 2004/0034063 A1 (Ko et al.), February 19, 2004; Applicants note that this document is a family member of documents (25) to (42);
- (44) U.S. Patent Application Publication No. US 2005/0096325 A1 (Ko et al.), May 5, 2005; Applicants note that this document is a family member of documents (25) to (43);

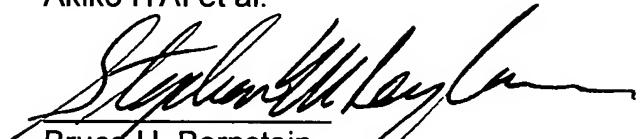
- (45) U.S. Patent Application Publication No. US 2005/0192291 A1 (Ko et al.), September 1, 2005; Applicants note that this document is a family member of documents (25) to (44);
- (46) EP 0749974 A1, December 27, 1996, corresponding to International Application No. WO 95/24410, published September 14, 1995;
- (47) U.S. Patent No. 5,798,344 A1 (Kuroki et al.), August 25, 1998; Applicants note that this document is a family member of document (46).

Copies of the above-noted documents (except for U.S. patents and U.S. patent applications) and the International Preliminary Examination Report in English are enclosed together with a duly completed Form PTO-1449 listing these documents. The Examiner is accordingly requested to consider each of these documents, and to make them of record in this application by initialing in the appropriate spaces on the Form PTO-1449. Applicants respectfully request that the Examiner include a copy of the initialed Form PTO-1449 with the next communication from the U.S. Patent and Trademark Office.

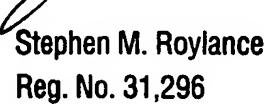
Further to the U.S. Patent and Trademark Office's decision to partially waive the requirements under 37 C.F.R. §1.98 (a)(2) (i) and (iii), copies of the U.S. patents and U.S. patent applications cited above are not enclosed herewith. However, if any copies are needed, the Examiner is respectfully requested to contact the undersigned.

Should there be any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,  
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FORM PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
P27674Application No.  
10/529,946INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT  
(Use several sheets if necessary)Applicant  
Akiko ITAI et al.Filing Date  
April 1, 2005Group  
Not Yet Assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		6 3 3 1 5 4 1	12/18/01	KO et al.			
		6 4 4 4 6 8 6	09/03/02	KO et al.			
		6 4 9 2 4 0 0	12/10/02	KO et al.			
		6 5 2 1 5 9 2	02/18/03	KO et al.			
2003 /	0 0 1 3 7 4 1	01/16/03	KO et al.				
	6 5 2 5 0 6 9	02/25/03	KO et al.				
	6 6 0 5 6 2 3	08/12/03	KO et al.				
	6 7 8 0 8 5 7	08/24/04	KO et al.				
2004 /	0 0 0 6 1 0 7	01/08/04	KO et al.				
	6 8 7 5 7 7 6	04/05/05	KO et al.				
2004 /	0 0 0 2 5 1 5	01/01/04	KO et al.				
	6 8 9 7 2 3 4	05/24/05	KO et al.				
2003 /	0 1 1 4 4 8 9	06/19/03	KO et al.				
	6 9 0 6 0 6 6	06/14/05	KO et al.				
2004 /	0 0 5 8 9 6 0	03/25/04	KO et al.				
	6 9 1 9 3 6 8	07/19/05	KO et al.				
2004 /	0 0 3 4 0 6 3	02/19/04	KO et al.				
2005 /	0 0 9 6 3 2 5	05/05/05	KO et al.				
2005 /	0 1 9 2 2 9 1	09/01/05	KO et al.				
	5 7 9 8 3 4 4	08/25/98	KUROKI et al.				

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	NO
	2004 /	0 0 6 9 5 6	01/22/04	W.I.P.O.				
		1 2 2 4 8 6 1	07/24/02	E.P.O.				
	0 0 /	3 5 4 5 2	06/22/00	W.I.P.O.				
		0 7 4 9 9 7 4	12/27/96	E.P.O.				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1	English Language Abstract WO 2004/006956.
2	Robert A. LEWIS et al., J. Immunol., Vol. 129, pp. 1627-1631, 1982.
3	John J. MURRAY et al., N. Eng. J. Med., Vol. 315 No. 13, pp. 800-804, 1986.

EXAMINER	DATE CONSIDERED
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\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. P27674	Application No. 10/529,946	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant Akiko ITAI et al.				
		Filing Date April 1, 2005		Group Not Yet Assigned		

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

4	Christopher Charles HARDY et al., N. Eng. J. Med., Vol. 311 No. 4, pp. 209-213, 1984.
5	Donald G. RAIBLE et al., J. Immunol., Vol. 148, pp. 3536-3542, 1992.
6	Toshiyuki MATSUOKA et al., Science., Vol. 287, pp. 2013-2017, 2000.
7	Yoshihiro URADE et al., Vitamins and Hormones, Vol. 58, pp. 89-120, 2000.
8	Yoshihiro URADE et al., J. Biol. Chem., Vol. 260, No. 23, pp. 12410-12415, 1985.
9	Yoshihiro URADE et al., Biochim. Biophys. Acta 1482, pp. 259-271, 2000.
10	Yoshihiro URADE et al., J. Immunol., Vol. 143 No. 9, pp. 2982-2989, 1989.
11	Yoshihiro URADE et al., J. Biol. Chem., Vol. 265, No. 1, pp. 371-375, 1990.
12	Makoto MURAKAMI et al., J. Biol. Chem., Vol. 270, No. 7, pp. 3239-3246, 1995.
13	Nobutoshi MATSUSHITA et al., Jpn. J. Pharmacol., Vol. 78, pp. 1-10, 1998.
14	Nobutoshi MATSUSHITA et al., Jpn. J. Pharmacol., Vol. 78, pp. 11-22, 1998.
15	Yoshihide KANAOKA et al., Cell, Vol. 90, No. 6, pp. 1085-1095, 1997.
16	Takuro KOBAYASHI et al., Brain Res., Vol. 202, No. 2, pp. 479-483, 1980.
17	L. W. DUCHEN et al., Brain, Vol. 103, No. 3, pp. 695-710, 1980.
18	Norio SAKAI et al., J. Neurochem., Vol. 66, No. 3, pp. 1118-1124, 1996.
19	Masako TANIIKE et al., J. Neuropathol. Exp. Neurol., Vol. 58, No. 6, pp. 644-653, 1999.
20	Motoki ICHIKAWA et al., Cell. Immunol., Vol. 191, No. 2, pp. 97-104, 1999.
21	Bernhard HEMMER et al., Nature Rev. Neurosci., Vol. 3, No. 4, pp. 291-301, 2002.
22	Bodour SALHIA et al., Brain Res., Vol. 883, No. 1, pp. 87-97, 2000.
23	Esther GARCIA DE YEBENES et al., J. Neurochem.. Vol 73, No. 2, pp. 812-820, 1999.

EXAMINER	DATE CONSIDERED
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